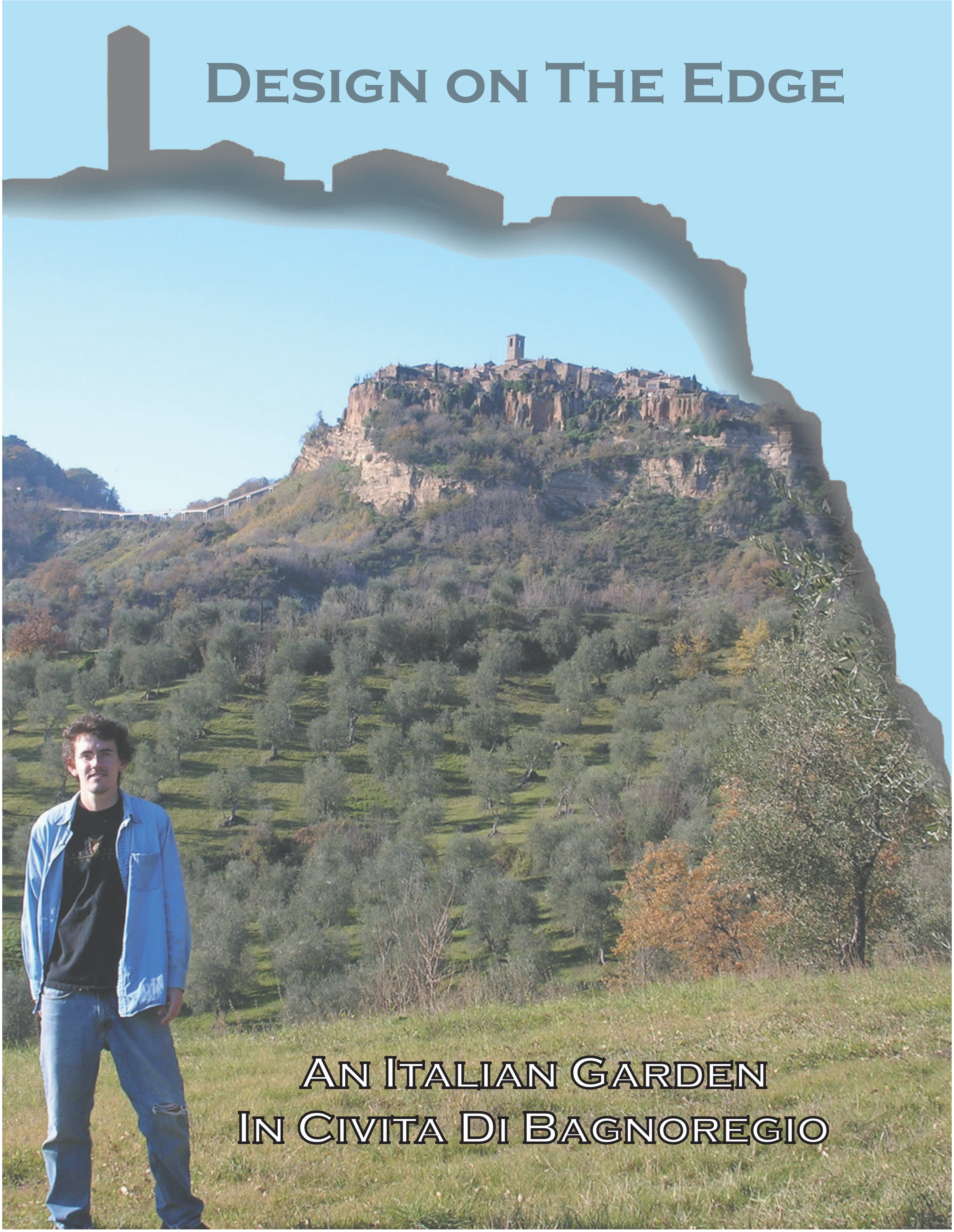
David Watts

LA 404: Comprehensive Project
Ball State University, CAP,
Department of Landscape Architecture
Spring, 2008

DESIGN ON THE EDGE



AN ITALIAN GARDEN
IN CIVITA DI BAGNOREGIO

Abstract:

When people think of great works of landscape design, it's not uncommon to look at the great villa gardens of renaissance Italy. This project is significant because Italy is a country whose landscape architecture and design had been a major catalyst and precursor to the creation of our modern professional practice of landscape architecture. Several historic designers such as Andre Le Notre, among others began their carriers in different fashions, but one thing is common between them all; they all dreamed of designing a garden on a cliff side terrace to take advantage of views and breezes.

My proposal is to design a garden in a small Italian cliff town that reflects the ordering principles and geometry of classical renaissance garden design while adhering seamlessly to the historic context of my site and the surrounding region. How can the design of an Italian garden be guided by the analysis of both the local and regional materials and history, and how will that analysis in conjunction with specific site elements can begin to lay the framework for the garden design? These are a few main questions I have researched which will provide me with the knowledge and reasoning necessary to design an Italian garden. I'm truly blessed to have the unique opportunity to design a garden on such a spectacularly sublime, historic, and precariously challenging site.

Acknowledgements:

A special thank you to my loving family for their continual support and guidance, without you this would have never happened. No really, you are the inspiration behind my endeavors.

To my advisor Robert Benson for your always inspiring criticisms, and for your outstanding appreciation and enthusiasm for myself and my work, thank you.

To my professor Ronald Spangler for his consistent wisdom and determination, your upbeat attitude and persona made the entire experience more enjoyable and fulfilling.

And to my friends and fellow class mates, thank you for all the support, the last few years have been a wonderful ride and I'll miss you all very much, just remember the world is smaller than you think!

Table Of Contents:

INTRODUCTION:

Italy has been inhabited for centuries, dating back to before 3000 B.C. The powerful Roman Empire stretched its rule over vast distances for hundreds of years. The renaissance had a strong presence here and profoundly changed the world. Italy has been the convergence of culture, art, and architecture. Italians have always had a close connection to the land. For this reason Italy is the ideal place to see people's relationship to the land, and how they react with it. Italian garden design has changed throughout history. Some gardens exist today, but a majority have vanished. From Etruscan times, through the middle ages and up to today, Italians have seen the land as frightening, beautiful, deadly, and divine. The Italian garden has evolved from the gardens of Pompeii, to the Boroque. These gardens are all key historical precedents for the creation of modern Italian gardens.

My proposal was to design a garden in Civita Di Bagnoregio. Civita, often referred to as "the dying city" has a year around population of under 30 people. New construction or renovation is subject to certain restrictions in order to keep the streetscape the same. Cars are not allowed except for emergency and construction purposes. A quarter mile long and very steep foot bridge is the primary and virtually the only way into the town. It has been the site for several movies and commercials and was on the WMF watch list of 2006. Civita provided an ideal site for the design of a true Italian garden, rich in history, culture, and beauty; one has to simply open their heart and their mind to find inspiration.

BACKGROUND:

The town to which my site resided in is called Civita Di Bagnoregio. (See Picture Below) It's located in central Italy in the region of Latium, province of Viterbo about 100 kilometers north of Rome. Martin, Change and Continuity in Civita(1975), explores the geology of the town. The hill on which the town stands is made from tufo, an airborne volcanic material over a base of sedimentary clay. Tufo is a soft porous stone which is easily carved and quarried, and is very strong in compression but not in tension. Tufo is one of the primary local building materials for architectural and landscape design. Another stone used in Civita is called Basaltina, it's a compact grey or white material from lava flows. This region hasn't been volcanically active since historical times, but erosion and earthquakes still threaten the town's existence. This excerpt began to inform me about the history of local building materials and geological activities which directly affected the structural design and materials chosen for construction.

Later its discussed how Etruscan tombs were found within the hillside, along with evidence of an Etruscan temple where the town church is today. This alone signifies that this land is enriched with Etruscan history. Any remnants found on the site pre or post construction should be saved and protected. The text also explores the possible lifestyle of Etruscan residents, the grid based alignment of the town, and defensive gates and walls. This kind of local history is useful in understanding the geometrical and social structure of the town, and how that evolved to become the existing site context.

BACKGROUND:

Martins' book continues the time procession of Civita with the Roman conquering of the region and the architectural influences that altered the town. This is useful in the same way as the Etruscan history in that the physical and social aspect was altered, which added to the contextual richness of the town in regards to relating context to design. Martins' text is the largest and most comprehensive analysis of history, materials, details, populace, politics, geology, and architecture that compose Civita. This will be a key text in linking the regional history and design elements to a site specific context and scale.

Tourism in the town of Civita is important on several levels. For one it has provided local occupants another source of income. Tourism in a way has saved this town. It has brought not only money but attention to the town instability. Civita would be a true ghost town without tourism. My project directly relates to the tourist as they are a crucial user of the garden. It is my hope that with the design of a garden open to the public, an increase in positive experiences of tourists will happen. This in turn should help stimulate the overall tourism of the town, therefore bringing more money and stability to the town.

LITERATURE REVIEW:

The following literature review will explore how Italian gardens are designed, what principles, elements, and materials make up the design, as well as the local and regional history to understand how the previously stated can influence the design of an Italian garden in Civita Di Bagnoregio, Italy.

How are Italian gardens designed? Chatfield, Classic Italian Garden(1991), explores the elements of garden designs in certain regions of Italy such as Tuscany, and Rome. These design elements range from axial design, the use of select plant materials, stone, water, sun, wind, and naturally occurring elements such as caves. These elements regarding design elements will help me in the research process of how Italian gardens are designed. This is done by informing me in the design process for choosing plant and building materials, and how to design for optimum use of sun and wind.

Mcguire, Gardens of Italy(1964), talks about the Quirinal Palace gardens. How various varieties of vegetables were planted on each side of a central divided path. He later refers to a garden character of secrecy and privacy due to its size and elevated position. Other design elements presented are huge hedge walls and archways, and a central graveled axis adjacent to lawns with fountains acting as a focal point to the design. He then discusses garden characteristics such as hedges forming long corridors of shadows, the linear succession from seclusion to open spaces, raised terraces, site lines, and geometrical patters of rivers stone.

Paintings of VIlla D'Este

Literature Review:

These above two sources are different in that the latter article by Mcguire is referring to site elements of a specific garden and in Chatfields' introduction he's reflecting a broader and less refined description of Italian garden design. Although different, similarities are present such as the mentioning of axial arrangements and the use of plant materials. However Chatfield goes on to cover in detail several dozen other gardens, where as Mcguire focuses on a few examples from ten types of different Italian gardens. The book by Mcguire was useful in exploring the different kinds of gardens. Mcguire discussed how different site conditions may guide my Italian garden design.

Dixon. The Italian Garden(1996), is a historical timeline from the very beginning of Italian gardens and even some of it's roots through the nineteenth century. In the text there is a section on the belvedere on page 63, which was significant to my project. It illustrates the change through time and its effects on Italian gardens. The text is fairly architectural and detailed with many names of places, people, ideas, and symbolism.

Chatfield, A Tour of Italian Gardens (1988), explores the design elements of early and later renaissance Italian gardens. Early examples are composed of elements such as a hillside site for optimum views and sun, as well as fresh air. Other elements include the "loggia", examples of topiary, plant materials, grottoes, arbors, and a central axis. Later renaissance gardens are described here as keeping the basic principles of Italian garden design, symmetry based on separating solid forms separated by open space which dictates that an open area should occur in the vicinity of the villa thereby separating the villa with a flower parterre. This except depicts that although the percolation of the Baroque style has influenced garden design, the basic underlying classic principles are still present. The text in this section of the book is similar to Chatfields other book "Classic Italian Gardens" in that parts are still very general about design concepts, and aren't referring to a particular garden, but yet a synopsis of all garden design elements and design principles.

PROJECT SIGNIFICANCE AND GOALS:

This project was significant for many reasons. First off the site was underutilized when considering the value of land in Civita. The site was the largest undeveloped private open space in the town. Another significant aspect of this project was that it provided tourists the only free access to a garden, as well as providing the best panoramic south facing view. This project was significant to the town of Civita at large through the additional enhancement of tourists experiences. The greater experience tourists have in Civita, the more tourists will come. Therefore providing greater money and recognition greatly needed for the costly re-stabilizing of the towns cliff edge.

Some of the designer's goals were to design a garden in a true Italianate style while using locally appropriate plant and building materials. Another was to design the garden to allow it to be open to the public during the day. Yet another goal was the garden should be safe and functional. The site is very limited in size and access but has several unique elements and characteristics, all of which were an integral part in the garden design. The users and clients consist of three groups, family and friends of the property owners, renters of the property and their guests, and tourists when the previously mentioned decide to open the garden to the public.

Additional Information:

Assumptions:

-Renaissance Italian garden design characteristics continue to be valid in the design of modern-day gardens.

-The garden continues to be under private ownership with free open access to the public.

-There is great interest in the revitalization and stabilization of Civita.

-There is a desire and need for further public access to gardens in Civita.

Delimitations:

-The site was surveyed mostly through observation and not with precise equipment.

-This garden design would not attempt to exactly recreate a renaissance Italian garden.

-No specific Italian safety guidelines would be researched; however basic public safety would be addresses.

Definition of Terms:

WMF: World Monument Fund

Tufo: Also called tuff, derived from the Latin Tofus. is a fragmental rock consisting of the smaller kinds of volcanic detritus, as ash or cinder, usually more or less stratified.

Etruscan: A native or inhabitant of ancient Etruria (ancient name of Tuscany); the Etruscans influenced the Romans (who had suppressed them by about 200 BC).

Renaissance: The activity, spirit, or time of the great revival of art, literature, and learning in Europe beginning in the 14th century and extending to the 17th century, marking the transition from the medieval to the modern world.

Baroque: The historic period from about 1600 until 1750 when the baroque style of art, architecture, and music flourished in Europe.

Villa: A villa was originally a Roman country house built for the upper classes.

SITE CONTEXT:

The town of Civita Di Bagnoregio is located in central Italy in the region of Lazio, province of Viterbo, roughly half way between Rome and Florence. In order to travel to the site one would first take a plane to Rome and then take a train to Orvieto, a hill town similar to Civita 30 miles to the northeast. From there a bus can take you to Bagnoregio, Bagnoregio was once physically connected to Civita before erosion and earthquakes separated the two. From there a short bus ride takes you to the bottom of the bridge. The bridge is the primary and virtually only way into town. The pedestrian oriented bridge (Fig. 3)allowing vehicles only for emergencies or construction purposes. It's .25 miles long and to steep for the handicap in wheelchairs to overcome alone.

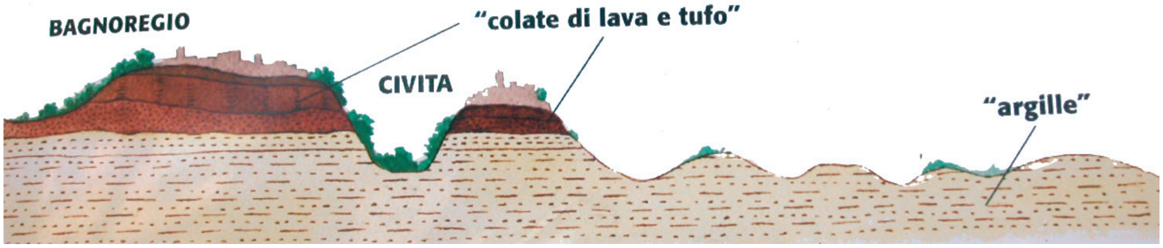
The town of Civita is very dense and urban, grass only exists in a few private gardens, and there are no front yards. The front doors of houses open right onto the street. The street runs down the middle of town, past the piazza and church. Cars are not allowed in the town except for emergency and construction purposes. The bridge is so steep and unforgiving most cars would not physical finish such an endeavor. Tall cliffs surround the town, which have been gradually crumbling away for centuries. Massive cliff support efforts have been in place for a decade and are continuing to stabilize Civita. My site is a long and fairly wide terrace on a south eastern cliff edge of the town. The main terrace is roughly 15 meters below street level.

Regional and Local History:

Mcguire, Gardens of Italy(1964), states it's the patrician garden of ancient Rome that the "Italian" style garden design really derives. However it may have been enriched and elaborated by the genius of renaissance Architects. This statement is insightful because it suggests by studying ancient Roman gardens one can learn the basis of the "Italian" style garden design. My site dates back before Roman times so Roman design elements might be more appropriate for the site. Another revelation is I can compare and contrast Roman and Renaissance designs to learn how they changed over time. By looking at which elements and design principles stayed, disappeared, and changed. I better understood the progression of regional Italian garden design.

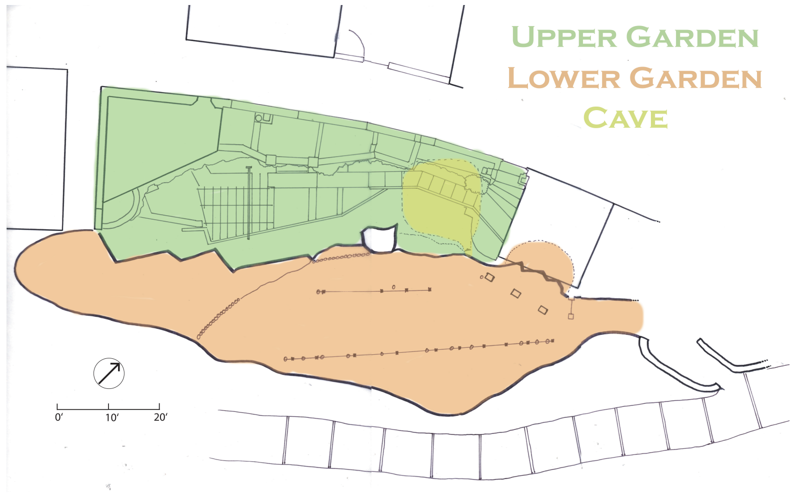
Historic preservation is important to my site and has been acted upon. Stabilization of the site occurred to help preserve the landform from eroding away or crumbling in an earthquake. The entire town of Civita is protected under the world monument watch. (NYTimes) However Civita was protected long before this, local codes have kept the integrity of the "streetscape" by prohibiting any alteration to any building facade. Hence nothing seen from the street is allowed to change.

In conclusion many valuable points were made throughout this review. The three main aspects that constitute this project were the design elements and materials, the local and regional history, and the site in relation to its surrounding context. The next challenge was to take those elements and history and relate them to my site. The site restricted some of the design elements due to its unique characteristics, but many opportunities still existed and were further refined throughout the design process.



PROGRAM:

* Connection Between Upper and Lower Garden
* Contextual Unity with Upper Garden
* Renaissance Styled Layout of Design
* Designing for Tourists
* Gateway and Arrival Elements
* Structure for Grape Vines
* Cistern and Cave Redesign
* Multi Terracing
* Interweaving Pathways
* Edge Treatment



In this program I went into detail about the specific design characteristics and elements I wish to address with this garden design. My discussion begins with the large ideas and concepts and moves toward detailed and specific concepts/elements. One important concept is the connection between elevations, i.e., the linkage between the "upper" and "lower gardens. I should clarify at this point that the lower garden is the primary site for the garden design. The upper garden is already designed and no changes are projected. Certain characteristics and use of materials however were looked upon for inspiration.

Another major concept was the overall design and layout of the garden, in which design principles from Renaissance gardens were used to form the design and layout providing a more historically representational garden. Some of these included, geometry, the use of sun and shade, views, and transitions between elevations.

A goal was to provide an educational experience to tourist, teaching them more about the town, the garden site, and the history of Etruscan and Roman societies. In addition to providing tourists with a historical background, this design intended to serve their needs in three ways. The first was to open the garden to public access giving them great panoramic views and other beautiful perspectives making a lasting impression on the visitor. The second way was providing an abundance of comfortable places to sit and rest. The last tourist need was free access to potable water, and perhaps a little wine for a small donation.

Now to explore some of the more detailed concepts of this proposed garden design. The main gate to the lower garden is fairly new, but the columns to which they are attached are old and aesthetically unappealing, thus replacement or a simple re-facing may be in order. Plantings to provide either a vertical element or an element of color were also desirable at the entrance gate. Last, the path leading up to the gate would need to be repaired and/or redesigned.

The next concept had to do with what you see when looking straight through the gate, a column, one of three in fairly bad shape. These were of no historical importance, although the three equally spaced and sized could serve as the main structural supports and starting point for some type of pergola that would progress through parts of the lower garden and provide support for the dozen or so grape vines on site which were held up by worn wooden fence posts.

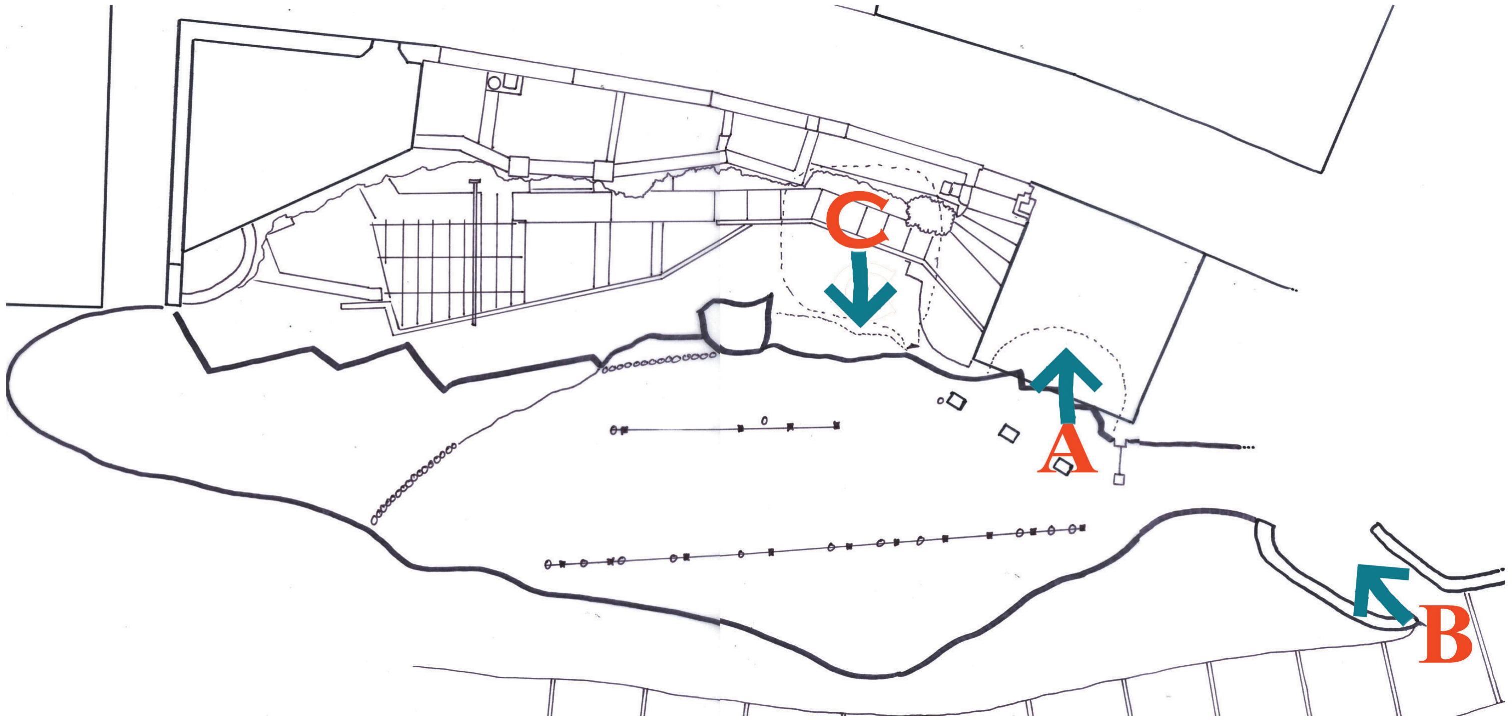
To the north of the columns, adjacent to the main gate, was the half cistern. A wall and door without hinges divided the half cistern from the rest of the garden. My thoughts were to remove or lower the wall, and turn this into a loggia space that looks south through the columns. A loggia is an architectural term of Italian origins which describes an enclosed area open on one side by supported columns or walls, usually facing south to take advantage of natural light. This space may also be classified as a grotto. However I decided to turn this into a loggia and not to restore the cistern for water collection because of possible mosquito problems associated with standing water. This area was fine tuned during the design phase to ensure proper engineering and adequate space.

Another concept and site element was the use of a large cave which extended into the Cliffside. The cave approx. 20x20x20 feet has a fairly constant temperature year around. The opening to the cave was about 8 feet above the main terrace elevation of the lower garden. Currently one must climb to reach it so better accessibility was desired for this site amenity. Also a plan or strategy of what to do inside the cave was needed.

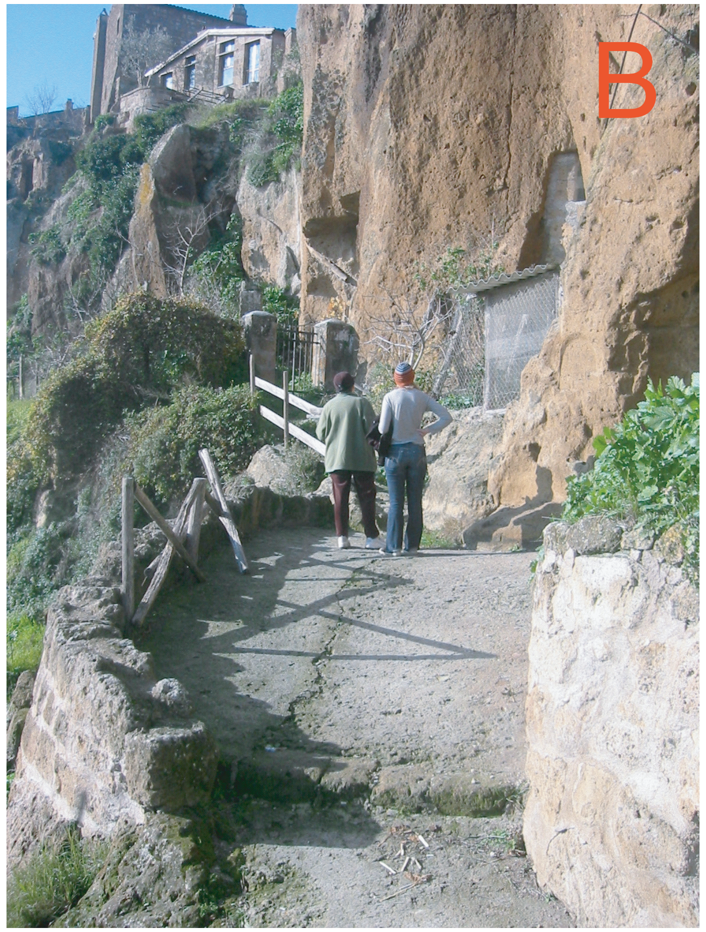
The last detailed concept which was briefly mentioned above is the design and progression of stair cases that link the main terrace to the mini terrace and upper terraces of the lower garden (where the stairs to the upper garden would be located). Now I know this must be confusing using site specific terminology so I have attached a rough plan to the left, showing the upper/lower garden division.

It was important to remember that the above concepts were only the major ones. Many more design decisions and concepts were created, from the choice and use of materials to the specific design of pergolas, to the selection and placement of plant species, to the treatment of cliff edges. It's through the design process that I hoped to refine these concepts and construct new ones in order to form a strong unified Italian garden design.

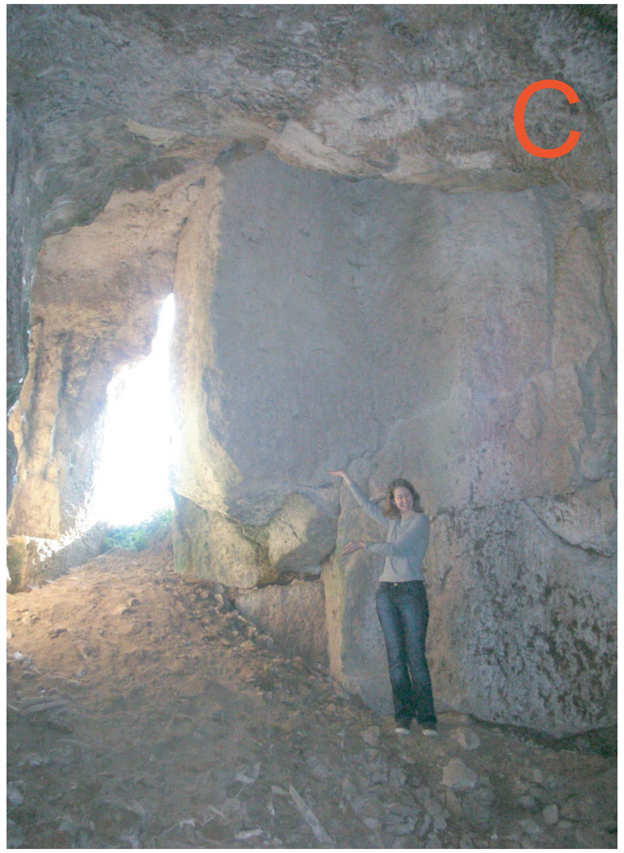
PHOTOGRAPHIC TOUR/ SITE INVENTORY:



Cistern: Dating back to the middle ages, only half remains due to an earthquake hundreds of year ago. This space is currently sheltering kindling or small branches for starting fires up in town. This cistern is located a few feet from the entry gate, just around the corner to the right as you enter.

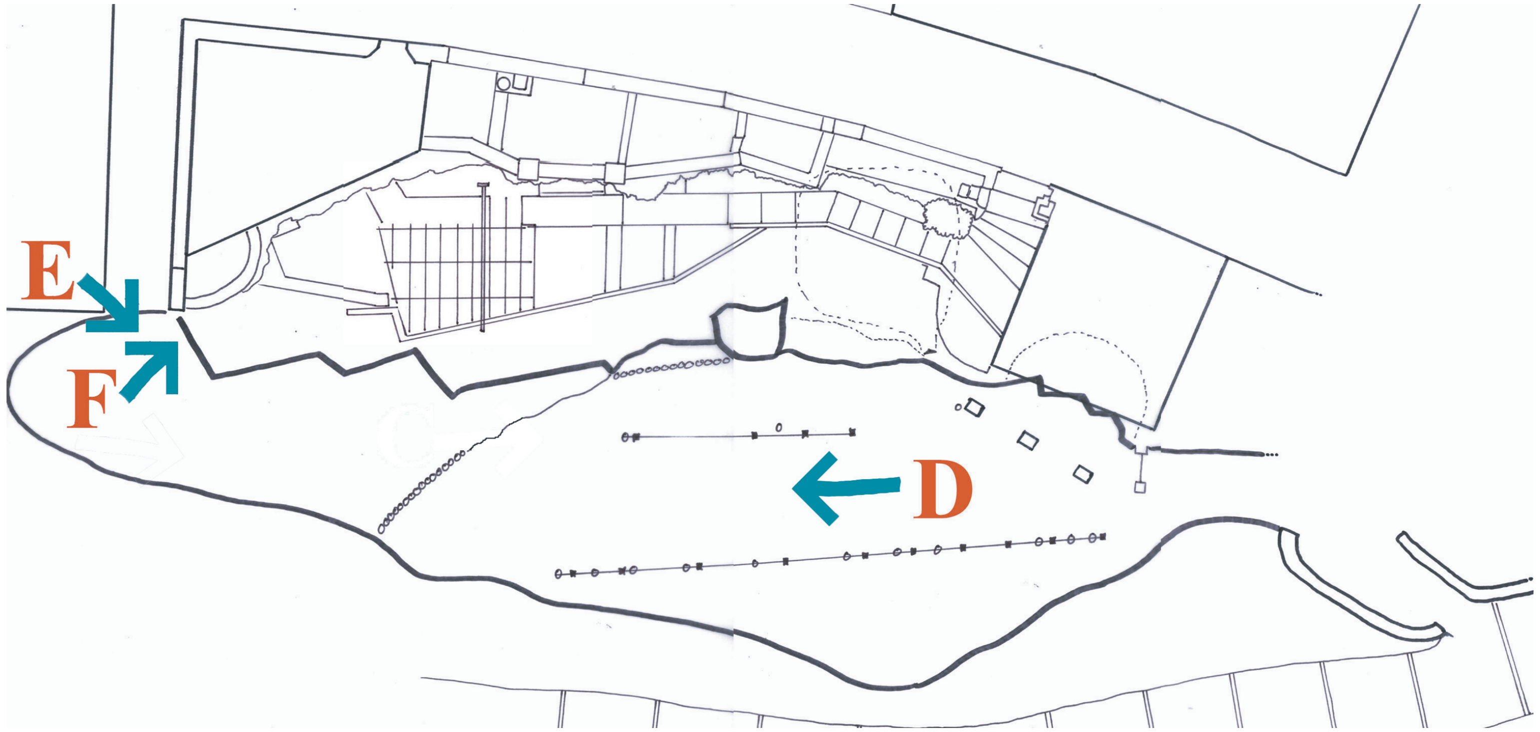


Connection to "street": The major path stretching from top to bottom in this photograph is the major circulation path to the gardens entry gate. The area between these two elements will be a crucial transition space. Currently there is a shrine to the local Saint located just behind the corrugated roof in this photo.



The Cave: Very spacious and semi-constant temperature with a small opening which may be larger if the dirt built up (as in the picture) is removed. The entrance is located approx.imately 20 feet from the main entry gate to the lower garden.

PHOTOGRAPHIC TOUR/ SITE INVENTORY:



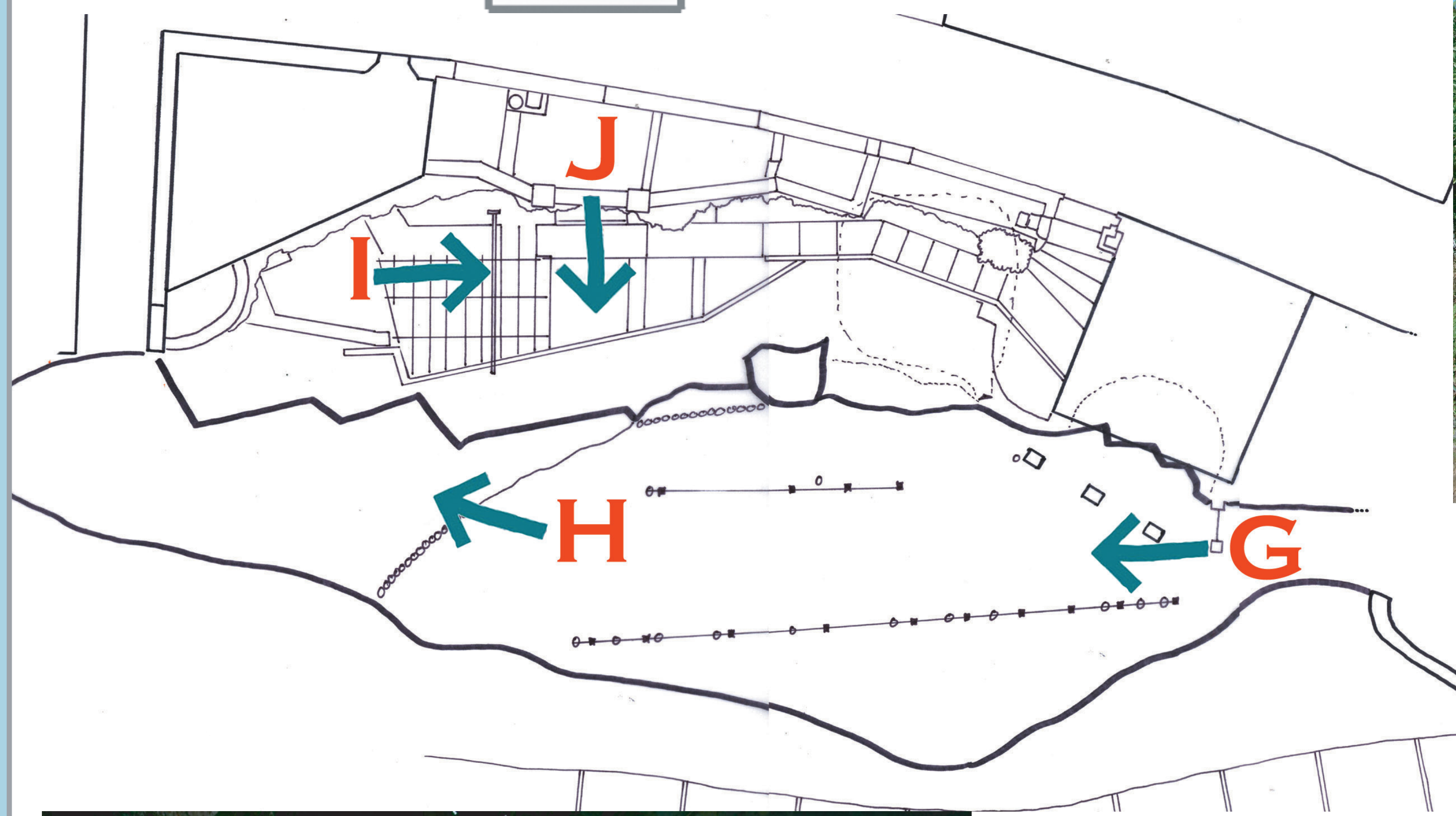
E

Edges: Steep cliffs, sometimes strait down, some man made walls but mostly outcropping. Some of this outcropping has been reinforced with steel rods, the tips of which are exposed about 6". That's me in the photos for scale purposes.

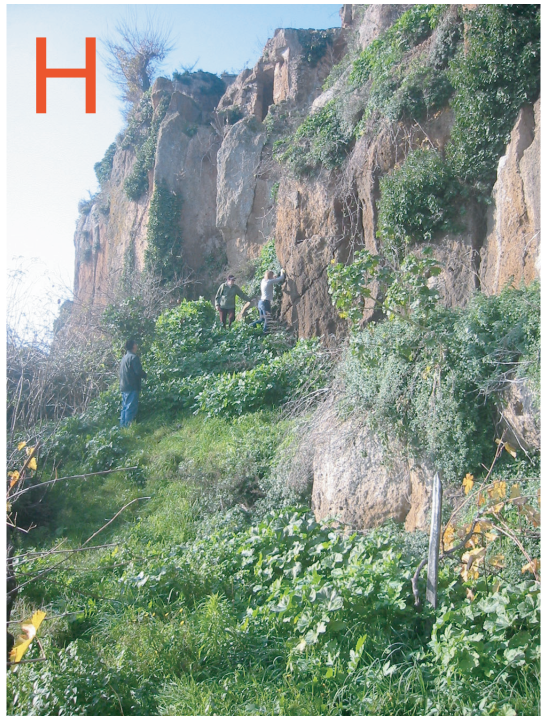
Connection to Upper Level: The upper level or garden terrace is a well maintained and designed garden. A table and chairs under a pergola is shown in the photo below just left of center. A row of grape vines located on the lower terrace (the primary site) can be seen in the lower right corner. A connection by stairway will probably be located on the western end of the site due to the close topographic proximity of the two levels.

Grape Vines: Approximately 12 grape vines grow in two rows right down the middle of the large terrace. These grapes are still used to produce a fine "sangiovese" red wine, which is the regional variety of grapes usually grown. Currently the grapes are supported by an aging fence posts with wire running parallel to the ground. The vines could use a new structure, perhaps a pergola of some form.

PHOTOGRAPHIC TOUR/ SITE INVENTORY:



Entry Gate: Black Iron between two concrete toped pillars of "Tufo" blocks



Topography: As with most Italian gardens, topography is very important. First and foremost the topography of the town and the views created by it are the most valuable. This does however create the always present danger of a landslide from whatever the cause. But if you look at the chronology of the site, the chances of a catastrophy happening in my lifetime is unlikely. Some topography is present at the back end of the site. It rises up approx. 12 feet. This will likely be the location of a stairway linking up with the upper garden terrace.

Wind/Sun: As shown in several photos in this site analysis, the site does receive sun and is open to the south south-east. Sun rises will be visible but not sun sets, at least not in the middle of summer. The site situated on the hill side as it is receives ample breezes and gusts, from what direction, and how it may dictate certain design guidelines is yet to be determined.

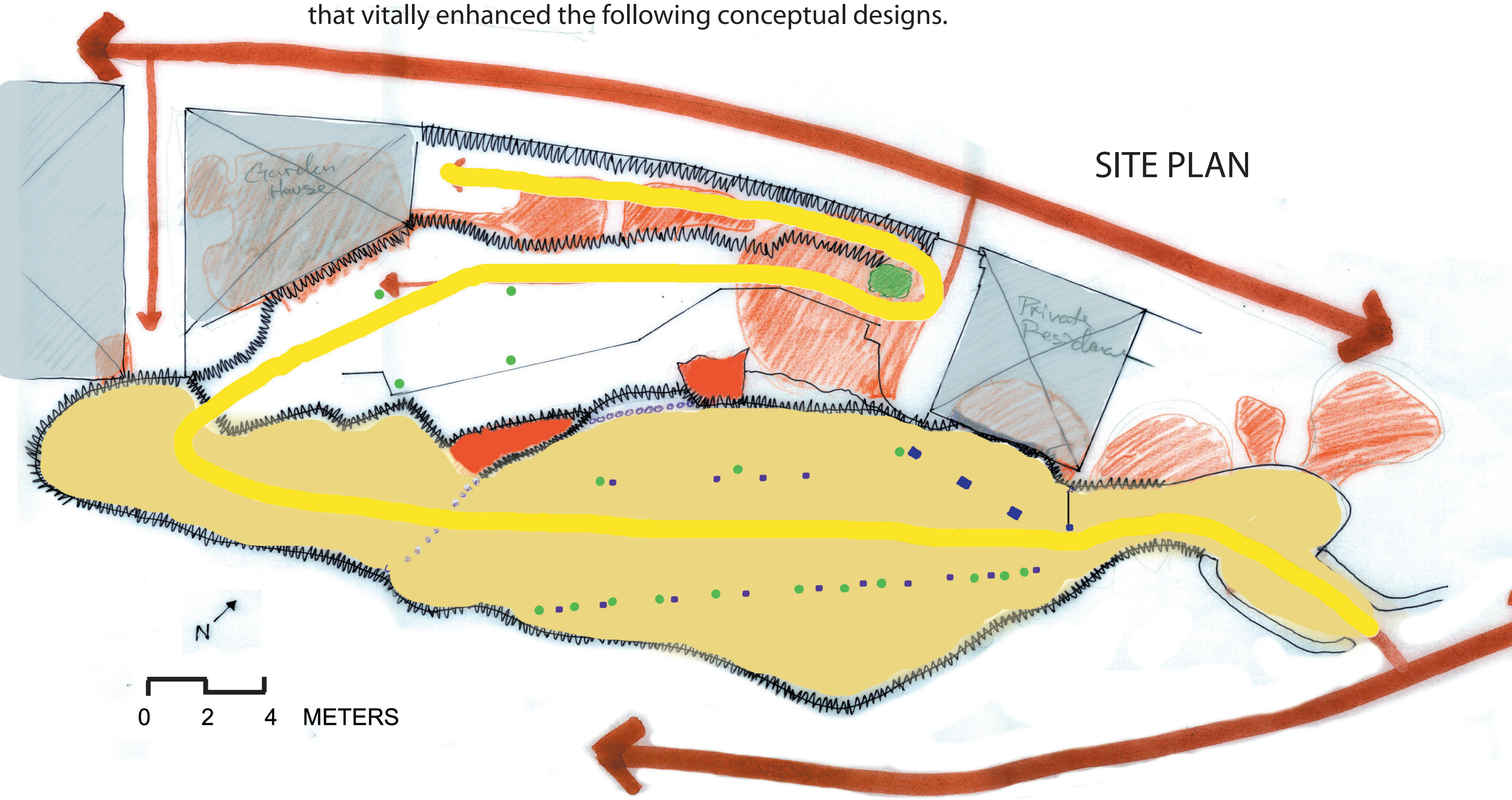
Views: Views are always important in Italian garden design as it symbolizes an open, outward looking and spiritually lifting design. In the Etruscan planning of Civita, they used distant mountains to orientate the direction of streets. This kind of application can be used to heighten the experience and visual relationships in the garden.

ANALYSIS:

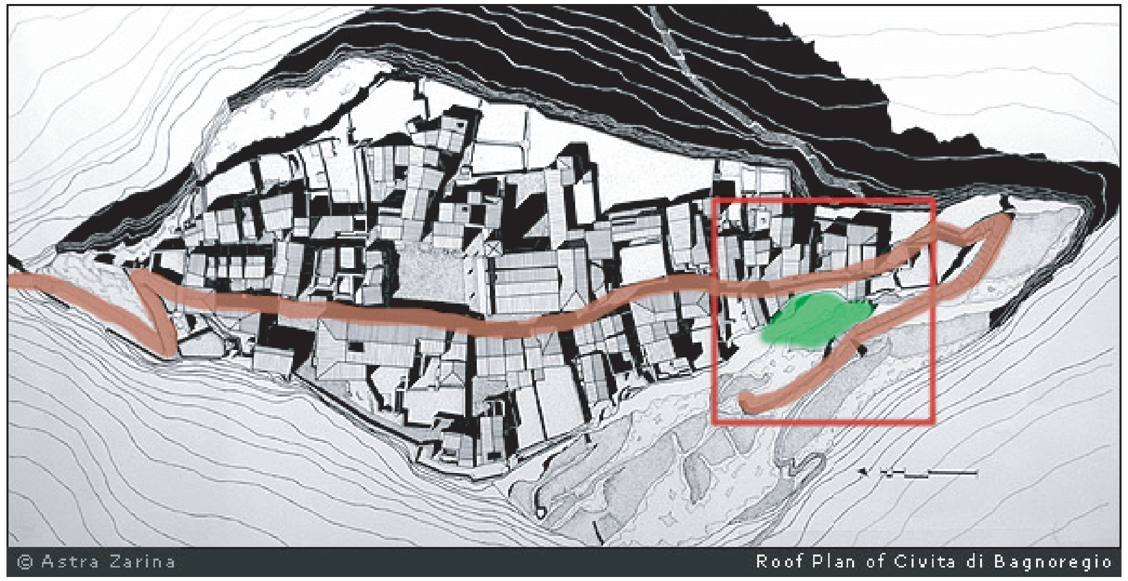
I focused my analysis on numerous components including natural features, caves, edges, vegetation, and the lineage between garden terraces. The yellow line represents the natural walking progression between terraces: it zigzagged on both plan and elevation. This led to the creation of a staircase on the western end of the lower garden to connect both upper and lower gardens with the natural walking progression.

The locations of edges were important to delineate on plan because it set boundaries and limitations on what could be built where. Specifically where the edge of the cliff is and how far back to build while maintaining safety. Vegetation was important to locate because some had to be removed, while other locations of built structures were directly related and dependent on the location of grape vines.

Other Existing site characteristics were studied such as several stone walls, block columns, protruding outcroppings, slopes, and the gardens relationship the streets and homes. Many other factors were discovered during the analysis process that vitally enhanced the following conceptual designs.



Civita Plan with site location and the main street



The site is located in the south eastern edge of the town of Civita Di Bagnoregio. The garden site had two levels separated by 15 to 30 feet of vertical change. The lower terrace was the primary site area, it's approximately 2200 square ft or .05 acres. The town itself has an elevated position over the surrounding landscape providing incredible panoramic views to distant mountains up to 100 miles away.

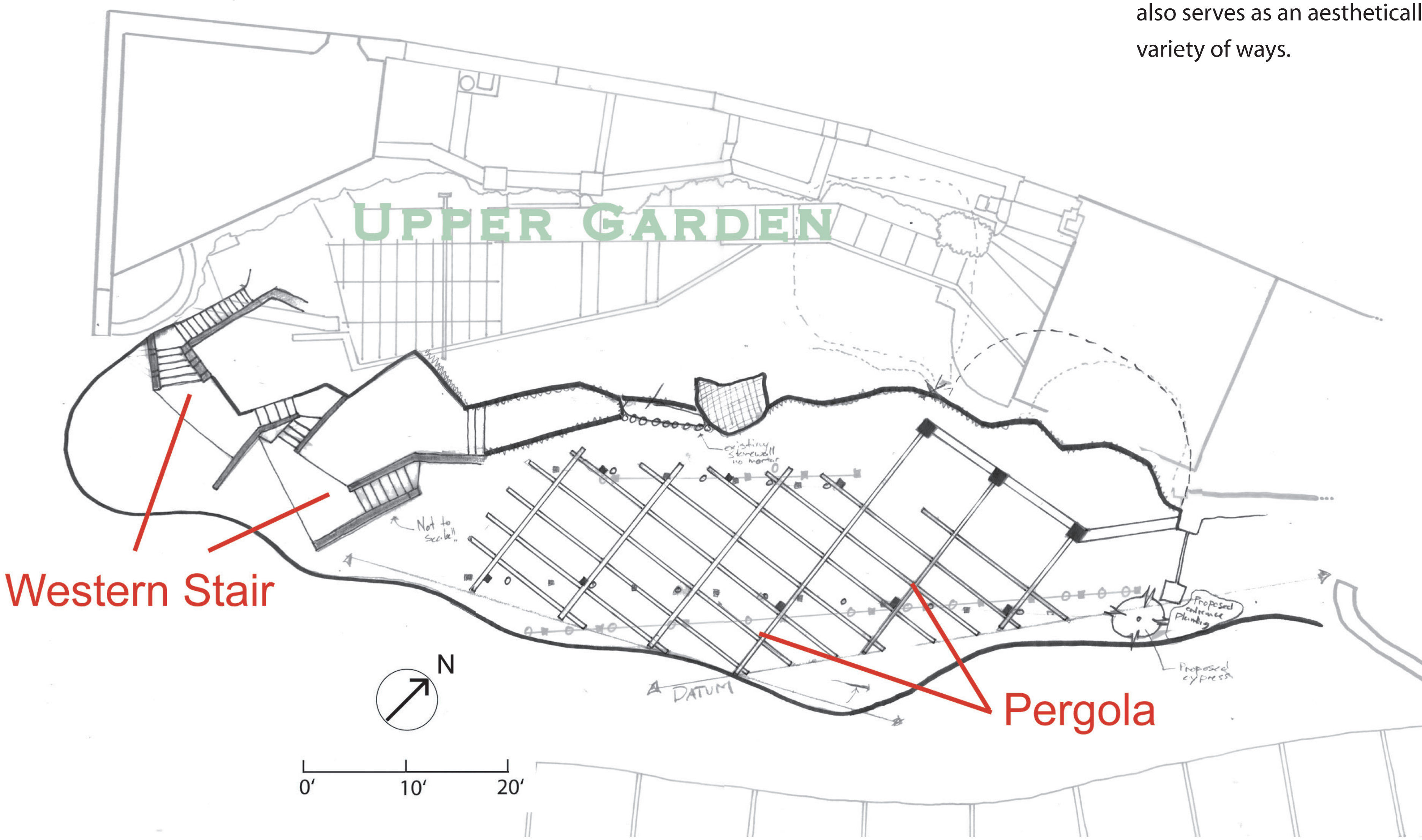
ELEVATION

CONCEPTUAL DESIGN 1; PERGOLA EXTRUSION

The first conceptual design was trying to address several program elements mainly the linkage between levels and the pergola design. The topographical analysis of the western half of the lower garden included on site surveying, this area proved an ideal location for the staircase connecting the two halves of the garden.

An existing wall divides the primary site into two terraces; the western edge is where the series of staircases begins. Another existing feature of three columns shown in the picture below provided a geometry and structural element for the extrusion of a pergola.

The pergola is an important design component; it provides an improved structure for the grape vines, allowing them more room to grow. Shade is now provided by the growth of the grape vines. The spacing of the pergola's grid and location of support columns are critical to allow the proximity needed for the vines to attach to the supports. The pergola also serves as an aesthetically pleasing attribute contributing to the visitors experience in a variety of ways.

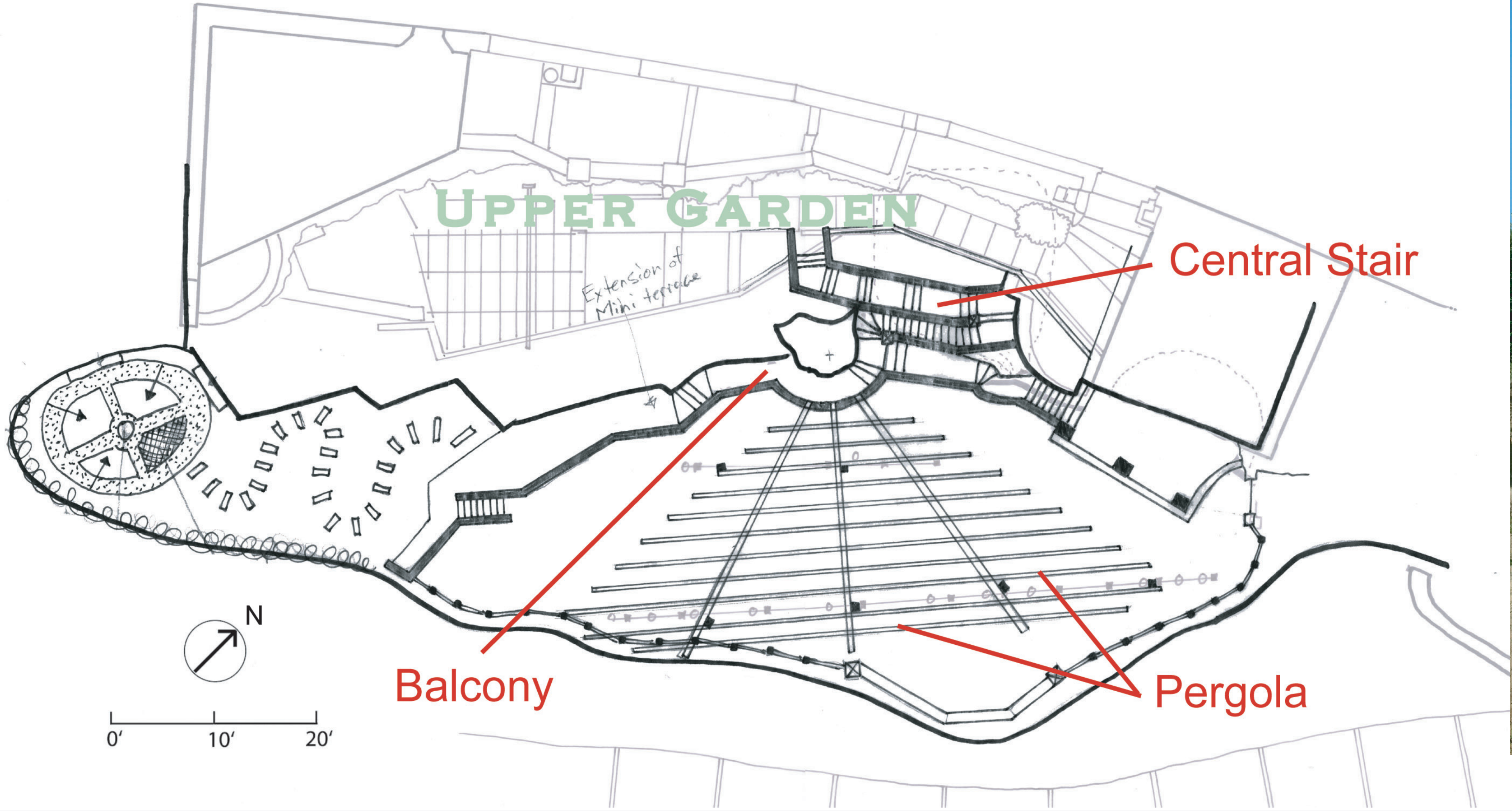


CONCEPTUAL DESIGN 2;
BALCONY TO CAVE

The second concept explores a different way of designing the staircase and pergola. In this concept the stairs were moved to a more centralized location, this location however is not ideal because of the sheer increase in the change of elevation. This stair case has to transverse almost twice the vertical distance than the stairs in the first design concept.

The pergola has changed as well in the second concept to a radial design, the center point of which is a giant boulder shown in the picture below. This design was affective and grounded to site elements; however the introduction to a radial or circular design contradicts the existing overall geometry of the garden and the town.

One unique design elements to arise from this concept is the "balcony" area. This element was initially designed to provide easy access to the proposed stairs. After completion of this element however, additional uses were associated with it. For instance it provided access to the cave and granted the user an elevated position to view over the pergola and out to the distant views.

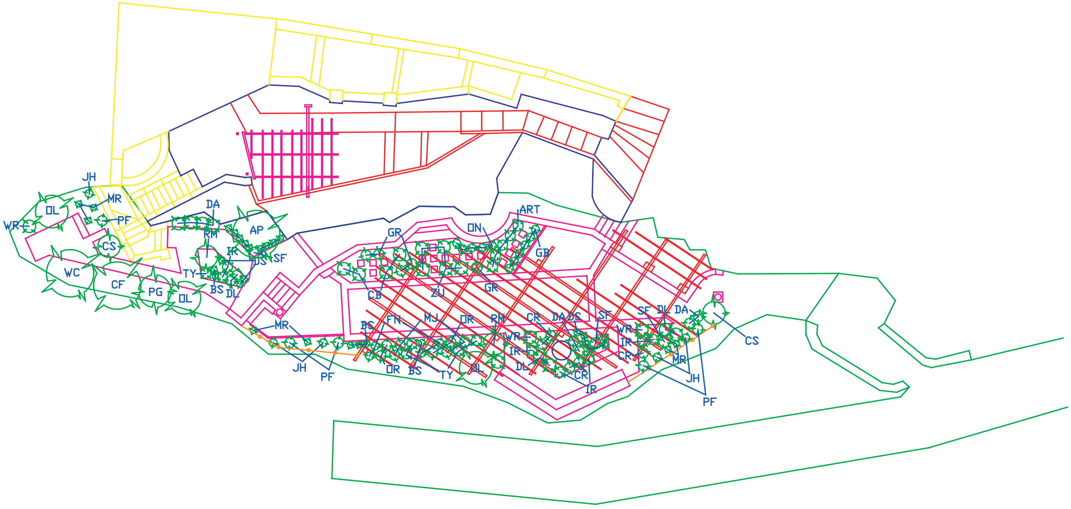


MASTER PLAN:

By utilizing the best attributes of the two concepts, the foundations of a master plan were established. From here additional elements were added such as appropriately scaled walkways, details, edge treatments, and locations for vegetation. The edge treatment in particular has been designed to alternate between fence, built wall, and vegetation to offer the user a variety of textures and views while gazing through and over them.

In addition the specific use of materials were developed and implemented in this phase. Gravel for instance was used on level ground, enclosed by either tufo block or vegetation. Terracotta tile was used at the entrance, on the balcony, and other key areas as a more permanent alternative to gravel. Tufo blocks were used to enclose areas of gravel as well as for walkways, retaining walls, and some benches. Most benches and important steps where durability is necessary, Basalt was used which is a more durable material than tufo. However Basalt is relatively expensive so its use was limited.

The underlying geometry used was rectilinear in form. This is appropriate due to the local materials of tufo block squares. This geometry also kept in conjunction with the upper gardens geometry, creating a unified design throughout the many terraces. The use of rectilinear geometry was highly prevalent in Italian renaissance garden designs. Hence the modern Civita garden design fits into the larger framework of regional classic garden design styles.

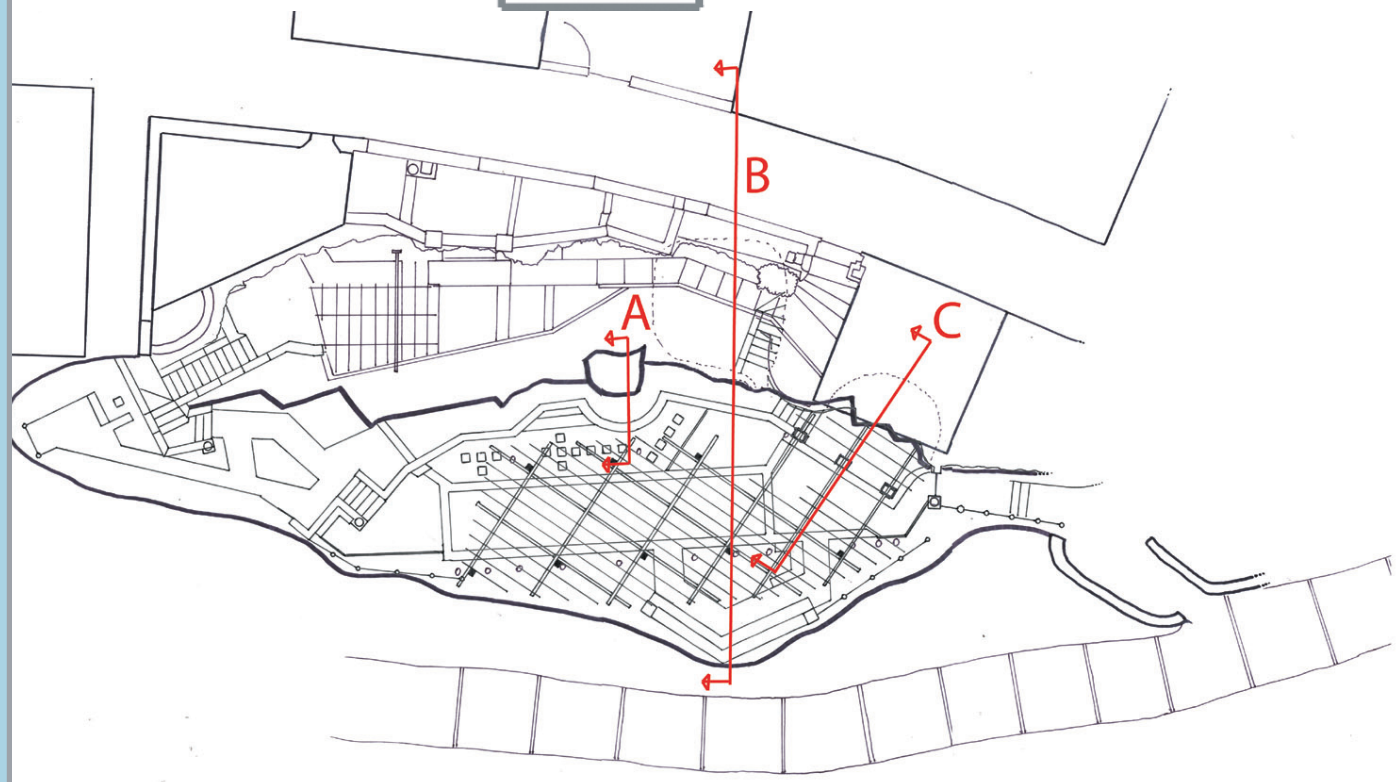


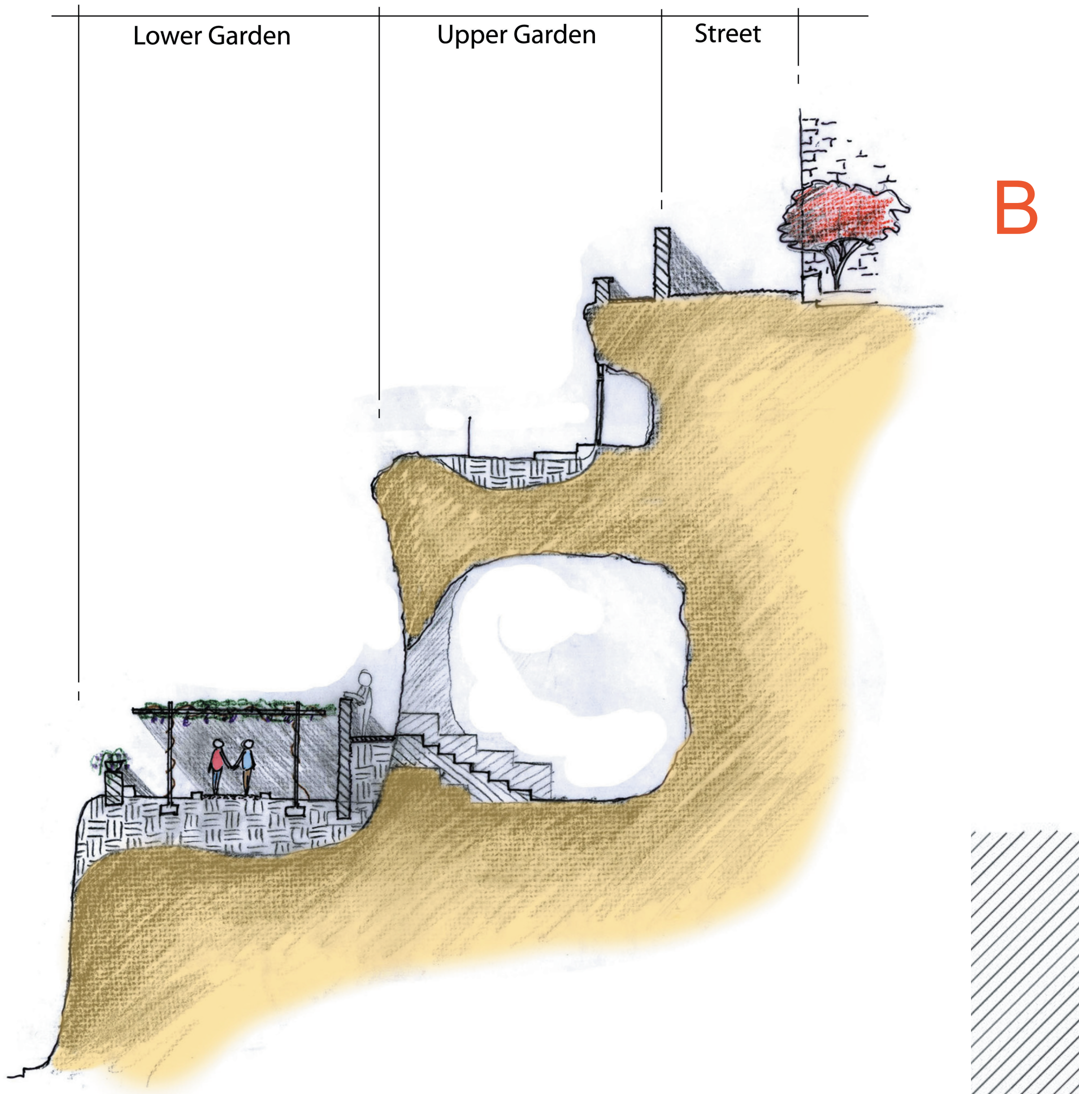
Master Plan:

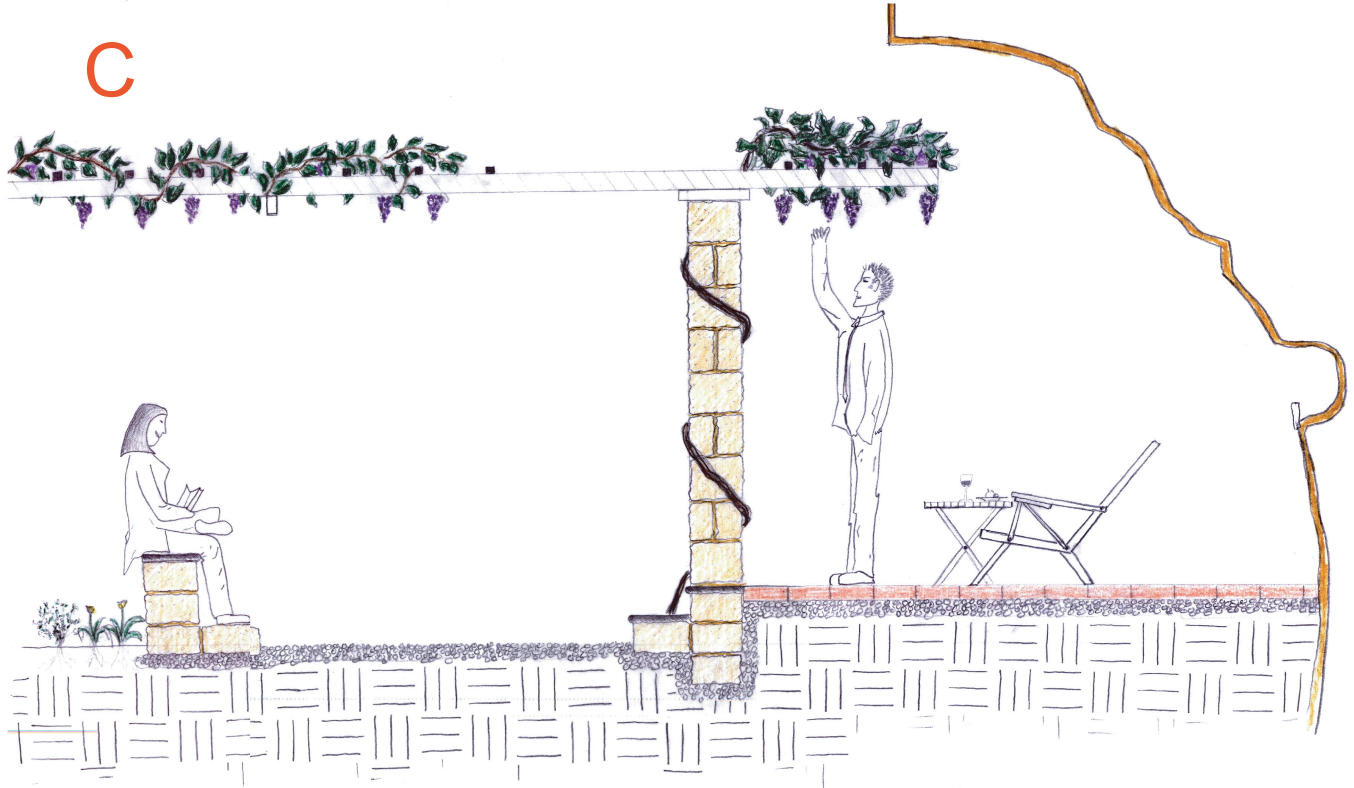
PLAN TEXTURE KEY

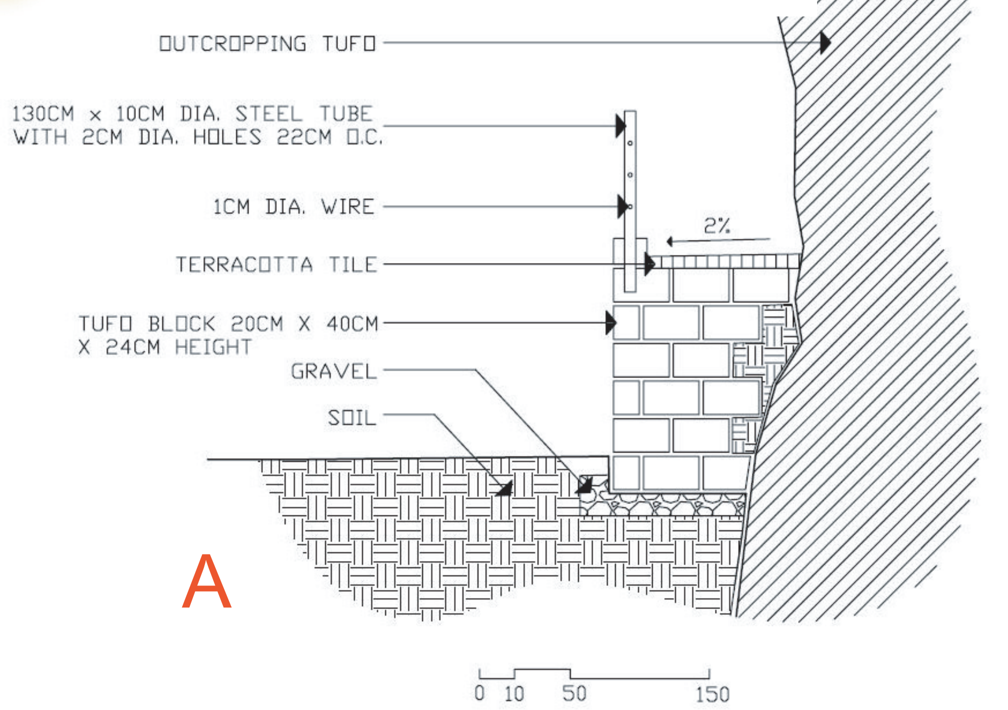
- ■ BUILDING
- ▨ COBBLESTONE
- ▨ TERRACOTTA TILE
- ▨ TUFO BLOCK WALK
- ▨ VEGITATION
- ▨ TUFO BLOCK WALL
- ▨ GRAVEL
- ▨ CONCRETE
- ▨ BASALT

SECTIONS/ CONSTRUCTION DETAIL:









PLANTING PLAN:

In the creation of a planting plan I broke up the selected plants into section. For plant list see(Figure. 2). Each section has specific design criteria which guided my plant location decisions. Those criteria are as followed and associated by color to (Figure. 1).

Vegetables; located in easily accessible areas for maintenance and harvesting purposes.

Herbs; located close to stairway to upper garden for quick access from house for cooking. Also located under pergola where tall trees or shrubs would interfere with the pergola and the attached vines.

Groundcover/Vines; located near fence, walls, or structures that support climbing plants.

Perennials; located near high traffic areas to take advantage of color and aroma.

Trees; strategically placed in open areas to provide shade to certain areas. Also used to block and frame views.

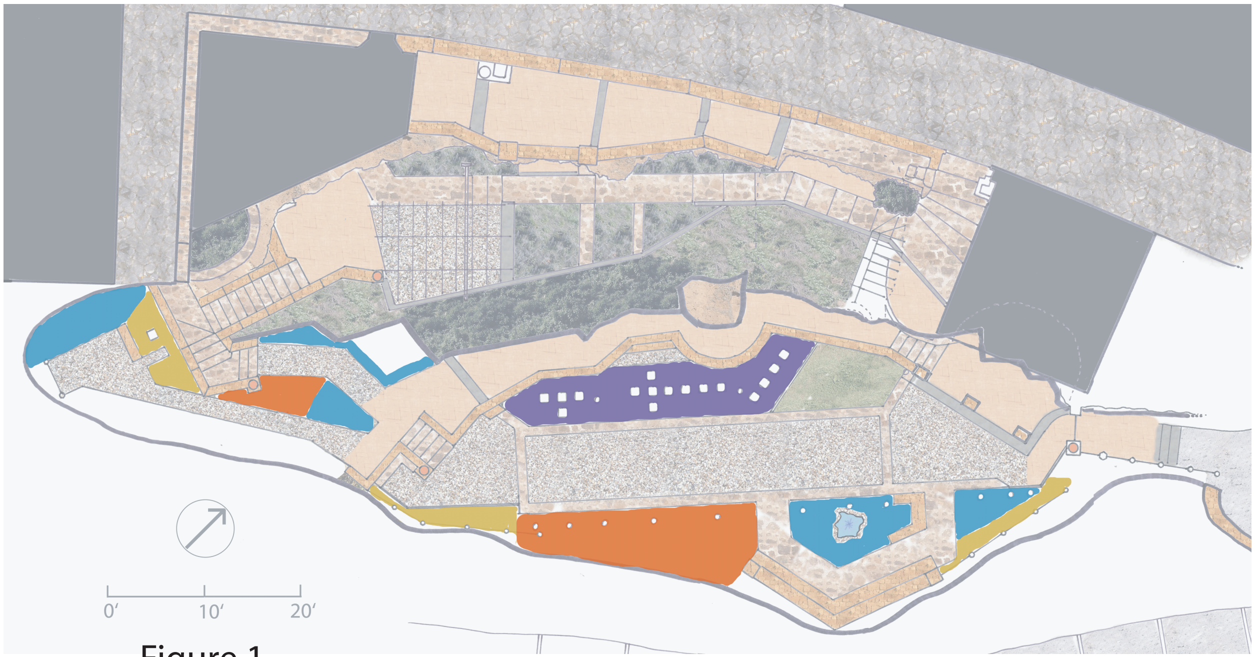


Figure 1.

Planting Plan:

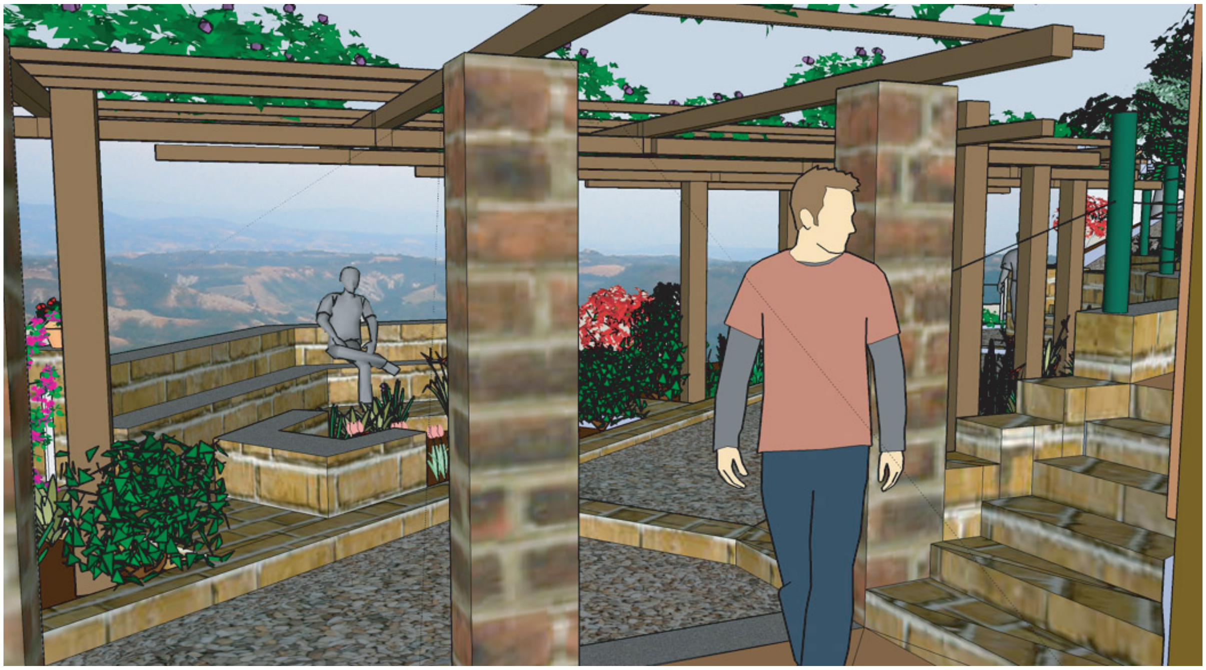
Figure 2.

PLANT LIST

Common Name	Scientific Name	Symbol
Herbs		
Rosemary	rosmarium officinalis	RM
Thyme	thymus vulgaris	TY
Golden Sage	Salvia officinalis aurea	GS
Marjoram	origanum majorana	MJ
oregano	origanum vulgare hirtum	OR
fennel	Foeniculum Vulgare	FN
Basil	Ocimum basilicum	BS
Ground Cover & Vines		
Myrtle	myrtus commuris	MR
Jasmine	jasminum humile	JH
Passion Flower		PF
Vegetables		
Zuchini		ZU
Green Beans		GB
Onions		ON
Artichokes		ART
Cabage		CB
Garlic		GR
Trees		
Mediterranean Cypress	Cupressus sempervirens	CS
Pomegranate	Punica granatum	PG
Oleander	Nerium oleander	OL
Apricot	Prunus armeniaca	AP
Common Fig	Ficus carica	CF
Wild Cherry	Prunus avium	WC
Perennials		
White Rose	Rosa x alba	WR
Iris		IR
Day Lilly		DL
Chrysanthemum		CR
Dahlia	Dahlia juarezii	DA
Scarlet Firethorn	Pyracantha coccinea	SF
Daisy		DS

MODEL:

MODEL:



WORK SITED:

Acton, Harold. The Vilas of Tuscany. London: Thames and Hudson Ltd, 1973.

Cartwright, Julia. Italian Gardens of The Renaissance. London: Elder Smith & Co., 1914

Chatfield, Judith. A Tour of Italian Gardens. New York: Rizzoli International, 1988.

Chatfield, Judith. The Classic Italian Garden. New York: Rizzoli International, 1991.

Clarke, Ethne. The Gardens of Tuscany. New York, Rizzoli International, 1990.

Coffin, David. The Italian Garden. Washington: Dumbarton Oaks, 1972.

De' Medici, Lorenza. The Renaissance of Italian Gardens. New York: Ballantine Books, 1990

Hunt, John Dixon. The Italian Garden. New York: Cambridge University Press, 1996.

Martin, Carol Nancy. Change and Continuity in Civita. Master's Thesis, Dep. Of Architecture: University of Washington, 1975.

McGuire, Frances. Gardens of Italy. New York: M. Barrows and Comparny, 1964.

Ruberti, Antonio. Civita Di Bagnoregio, osservazioni geologiche e monitoraggio storico dell' ambiente. Rome: Progetto Civita: 2005.

http://www.wmf.org/watch.html